

Serial No. 10/722,310
Att'y Dkt. No. DAY0743VA/40195.811

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REMARKS

Applicants have amended the specification at page 1, paragraph [0001] to update the status of the parent application. Paragraph [0043] on page 11 has been amended to bring that passage into conformance with Fig. 2 as originally filed. Paragraph [0054] at page 14 has been amended to correct a typographical error in reference to passageways 32.

Applicants will respond to each objection and ground of rejection in detail below.

Objection to the Drawings

Applicants have corrected a typographical error at page 14, paragraph [0054], to correct the reference numeral with respect to passageways 32. As amended, the specification and drawings are in agreement. Accordingly, applicants do not believe that any amendment to the original drawings as filed is required.

Objection to the Specification

Applicants have corrected the description at page 11, paragraph [0043], so that the description is now in accordance with Fig. 2 as originally filed. Accordingly, applicants believe that the specification has now been corrected.

The Rejection of Claims 12-13 under 35 USC §112

The Examiner pointed out that claims 12 and 13 lacked antecedent basis for the term "said elastomer." Applicants have amended claim 12 so that it now correctly depends from claim 11 to provide proper antecedent basis for that term.

The Rejection of Claims 1-6, 8, 10, 18, and 21 under 35 USC §103

In the Office Action, the Examiner rejected claims 1-6, 8, 10, 18, and 21 under 35 USC §103 as unpatentable over Okubo (US 5884559) in view of Hatch (US 5840386). Okubo teaches a cylindrical offset lithographic printing blanket in which a base layer 31 of an elastomer is adhered to a base cylindrical sleeve 2 which may be metal or reinforced fiberglass (col. 4, lines

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61-67). A thread 32 is wrapped around the elastomer layer 31, and compressible layer 33 and surface print layer 34 are adhered over one another to complete the blanket. Hatch is directed to a liquid transfer roll which is adapted to be mounted onto a mandrel. The inner layer 26 of the sleeve is comprised of a fiber-reinforced polymer resin (col. 7, lines 34-38). The Examiner took the position that Okubo's elastomer layer 31 and non-stretchable layer 32 together comprised the claimed "base sleeve." The Examiner also asserted that "it would have been obvious ... to modify Okubo's base layer by substituting for rubber cement with a polymer resin as taught by Hatch." See, Office Action at pp. 4-5. The Examiner's stated basis for the substitution of materials was the "desire to produce a removable and reusable print sleeve."

Applicants disagree with many of the Examiner's assertions, including the asserted motivation to combine the reference teachings. Initially, as described and claimed, applicants' process provides a cylindrical support which serves as a mandrel in the fabrication of the sleeve. The "base" portion of the print sleeve comprises a fibrous material and a polymer resin. Okubo's "base" sleeve, on the other hand, comprises sleeve 2, not combined layers 31 and 32 as asserted by the Examiner. As taught by Okubo, sleeve 2 comprises either a thin metal like nickel or a "fiberglass reinforced plastic." See, col. 4, lines 61-67. Layers 31 and 32 are added to this base sleeve. See also, col. 11, Examples 1-4 where Okubo teaches mounting sleeve 2 onto a "mandrel." Thus, Okubo supplies a cylindrical support ("mandrel") and a pre-made fiber-reinforced resin sleeve (sleeve 2). Contrary to the Examiner's assertion, Okubo does not then apply a compressible layer *to the outer surface of the base sleeve* as claimed by applicants. Rather, Okubo applies an elastomer (31) and a wound thread (32) to his base sleeve. The Examiner's interpretation of the reference is factually incorrect and has led to an erroneous interpretation of Okubo's teachings.

Further, the Examiner has made seemingly contradictory statements as to what constitutes Okubo's base sleeve. At one point, the Examiner asserted that Okubo's base sleeve comprises layers 31 and 32 in combination. At another point, the Examiner asserted that "Okubo discloses the use of unvulcanized rubber cement for the base layer." Office Action at page 4. What Okubo actually describes is the use of a synthetic rubber for adhesive layer "g1." See, col. 8, lines 60-63. Further, both Hatch and Okubo use a fiber-reinforced base sleeve. Applicants do not understand the Examiner's assertion that it would have been obvious to "modify Okubo's

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base layer by substituting for rubber cement with a polymer resin as taught by Hatch." See, Office Action at pages 4-5. If the Examiner is asserting that it would have been obvious to use Hatch's fiberglass sleeve base in place of Okubo's nickel sleeve, then applicants agree because Okubo himself suggests use of the alternative.

However, if the Examiner is asserting that it would have been obvious to substitute Hatch's fiberglass sleeve base for the combined elastomer and thread layers 31 and 32 of Okubo, then applicants vigorously disagree. That portion of the Okubo sleeve construction is not the base sleeve. If this is what the Examiner is asserting, then the assertion is to remove the elastomer and thread layers of Okubo and replace them with a second reinforced fiberglass sleeve. One skilled in the art would not have found it obvious to make such a major change in the construction of Okubo's sleeve. Even then, such a change would not result in the claimed process.

If the Examiner is arguing that Okubo's adhesive layer g1 should be replaced by Hatch's reinforced fiberglass sleeve, then applicants also vigorously disagree with that assertion. One would not assume that a fiberglass sleeve would function as an adhesive. If the Examiner is asserting that one would deconstruct Hatch's fiberglass sleeve, use only polymer resin in its uncured state, and substitute it for Okubo's g1 adhesive, applicants again vigorously disagree that such would have been obvious. Nothing in this record suggests these modifications to the references.

Applicants also question the Examiner's stated "motivation" for the modification to Okubo. Okubo certainly does not discuss a print sleeve which is "removable" from a base sleeve. To the contrary, Okubo explicitly teaches the use of adhesives g1-g4 to adhere each and every layer of his sleeve together. Nor does Hatch teach or suggest a print sleeve that is removable from a base. Applicants are uncertain of the origin and factual basis for the assertion of a "desire" on the part of one skilled in the art for such a sleeve. If the Examiner persists with this rejection, applicants request an explanation of the source or origin of such "motivation." As this records stands, there is no prior art reference which teaches or suggests such a "desire."

For all of the above reasons, applicants submit that the rejection is not well taken, that Okubo's teachings have been misinterpreted, that no motivation exists to combine reference teachings, and that even if combined, the claimed process would not result.

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The Rejection of Claim 7 under 35 USC §103

In the Office Action, the Examiner rejected claim 7 under 35 USC §103 as unpatentable over Okubo and Hatch, taken further in view of Millett et al (US 5225020). The basis for this ground of rejection is the Examiner's assertion that it would have been obvious to fabricate the base sleeve of Okubo by a pultrusion method as taught by Millett. Applicants submit that this rejection is deficient for the reasons stated above with respect to the rejection of claims 1-6, 8, 10, 18, and 21. Furthermore, Okubo explicitly teaches and desires to form thread layer 32 by winding. Forming the combined layers 31 and 32 of Okubo by pultrusion using a forming die would completely defeat the purpose of Okubo's stated winding method and would not produce a print sleeve having a wound reinforcing layer. Modifying a reference to defeat its intended purpose does not constitute obviousness. For this additional reason, this rejection is not well taken and should be withdrawn.

The Rejection of Claims 9 and 19 under 35 USC §103

Also in the Office Action, the Examiner rejected claims 9 and 19 under 35 USC §103 as unpatentable over Okubo and Hatch taken further with Okubo et al (US 6782820). In order to simplify this response, Applicants will rely on the arguments presented above with respect to the rejection of claims 1-6, 8, 10, 18, and 21. Applicants submit that the rejection of claims 9 and 19, which depend from claim 1, is deficient for those reasons.

The Rejection of Claims 11-13 under 35 USC §103

Also in the Office Action, the Examiner rejected claims 11-13 under 35 USC §103 as unpatentable over Okubo and Hatch taken further with Vrotacoe et al (US 5304267). In order to simplify this response, Applicants will rely on the arguments presented above with respect to the rejection of claims 1-6, 8, 10, 18, and 21. Applicants submit that the rejection of claims 11-13, which depend directly or indirectly from claim 1, is deficient for those reasons.

The Rejection of Claims 14-17 under 35 USC §103

Also in the Office Action, the Examiner rejected claims 14-17 under 35 USC §103 as unpatentable over Okubo and Hatch taken further with Fan (US 6425327). The basis for this

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ground of rejection is the Examiner's assertion that it would have been obvious to modify Okubo by substituting the print surface layer of Okubo with a photopolymerizable material as taught by Fan. Applicants vigorously disagree. Okubo is clearly directed to a sleeve used in offset lithographic printing. See, col. 1, lines 5-8. Fan, on the other hand, is directed to a flexographic printing element. See, col. 1, lines 5-10. The purpose of Okubo's print surface layer is to provide a smooth continuous, ink receptive surface for ink to be offset from a printing plate onto the sleeve surface and then printed to a substrate. The purpose of Fan's flexographic element is to form a printing plate having raised relief areas formed by laser ablation of the photopolymerizable surface material. See, col. 10, lines 1-6, for example. Fan is a printing plate; Okubo is a printing blanket.

Applicants assert that this rejection is deficient for the reasons stated above with respect to the rejection of claims 1-6, 8, 10, 18, and 21. Furthermore, because of the very different construction, materials, and intended uses of the Okubo and Fan printing elements, applicants submit that one skilled in the art would not be motivated to completely change Okubo from an offset lithographic printing element to a flexographic printing element as this would completely change the intended purpose of Okubo's sleeve.

The Rejection of Claim 20 under 35 USC §103

Also in the Office Action, the Examiner rejected claim 20 under 35 USC §103 as unpatentable over Okubo and Hatch taken further with Gayle et al (US 6401613). In order to simplify this response, Applicants will rely on the arguments presented above with respect to the rejection of claims 1-6, 8, 10, 18, and 21. Applicants submit that the rejection of claim 20, which depends from claim 1, is deficient for those reasons.

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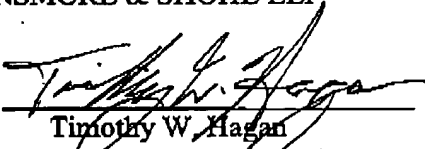
Conclusion

For all of the above reasons, applicants submit that claims 1-21, as amended, are patentable over the cited and applied prior art and are in compliance with §112. Early notification of allowable subject matter is respectfully solicited.

Respectfully submitted,

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